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REMARKS

Claim 1 has been canceled without prejudice or disclaimer. Applicants reserve the right to file one or more continuation or divisional applications directed to the canceled subject matter. The specification has been amended to include both the 09/304,362 application and the relationship of the applications to each other and to cite the Patent Numbers and issue dates as required by the Office. No new matter has been added. Entry is respectfully requested.

The Office states that a reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in the application data sheet (37 CFR 1.76, if applicant intends to rely on the filing date of the prior application under 35 USC 119(e), 120, 121, or 365 (c). The Office also cites 37 CFR 1.78(a). The Office then states for benefit claims under 35 USC 120, 121, or 365 (c), the application reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. The Office then states that if the application is a utility or plant application filed under 35 USC 111 (a) on or

after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant patent application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 USC 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 USC 371(b) or (f) or sixteen months from the filing date of the prior application. The Office refers to 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). The Office then states that the time is not extendable and a failure to submit the reference required by 35 USC 119(e) and/or 120, where applicable, within the time period is considered a waiver of any benefit of such prior application(s) under 35 USC 119(e), 120, 121, and 365(c). The Office then states that a benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 USC 119(e), 120, 121, and 365(c). The Office then states that the petition must be accompanied by (1) the reference required by 35 USC 120 OR 119 (E) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted, (2) a

surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Office then states that the Director may require additional information where there is a question whether the delay was unintentional and states that the petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 450, Alexandria, Virginia 22313-1450.

The Office then states that if the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78 (a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. The Office then states that Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. The Office refers Applicant to MPEP 201.11.

The office then states that Applicant in the ADS cites the 09/304,362 but not 09/848,236 and in the first sentence cites

09/848,236 but not to 09/304,362. The Office then requests Applicant to provide both an amended ADS citing to both applications and an amendment to the specification citing both applications and their relationship to each other and/or the present application and also indication that said applications are now US Pat Nos. 6,267,953 and 6,800,279 where applicable.

Applicants have amended the first sentences of the above-identified application to recite pendency to both the 09/304,362 application and 09/848,236 application as well as their respective patent numbers. Applicant has also attached a new ADS as required by the Office. Applicant has not filed a petition or paid the surcharge for the following reasons:

1. The USPTO recognizes that the above-referenced application claims benefit to both applications as evidenced on PAIR under Continuity DATA and PUBLICATION REVIEW
2. Applicant did not receive any Filing Receipt to date nor does PAIR list a Filing Receipt in the Image File Wrapper
3. The Utility Patent Application Transmittal Letter lists Continuity Data to both applications
4. The Declaration and Power of Attorney for Patent Application lists both applications.

The rejection of claim 1 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,2 of U.S. Patent 6,27,953 is respectfully traversed. Claim 1 has been canceled in this Reply. Withdrawal of the instant rejection is respectfully requested.

The rejection of claims 1,48, and 50 under the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 6,800,279 is respectfully traversed.

The Office states that although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-12 contain combinations of attractants which fall within the scope of claim 1. It then states that the method of claim 11 of said patent discloses a compositions consisting of glycolic acid and acetone. The Office then states the composition of claim 2 of said patent discloses mosquito attracting amounts of lactic acid and butanone. It concludes that as such, it would be obvious to modify the composition claim into a method of attracting mosquitoes with said claim.

Applicants respectfully request that this rejection be held in abeyance. Applicants will file a terminal disclaimer.

The objection of claim 1 because of the recited formalities is respectfully traversed.

Applicants have canceled claim 1. Withdrawal of the instant rejection is respectfully requested.

The rejection of claims 1,43, and 44 under 35 USC 112, first paragraph, because the specification, while being enabled for the specific embodiments, i.e. those compounds or mixture of compounds which were tested and found to be effective in attracting *Aedes aegypti*, *Aedes albopictus* and *Anopheles albinmanus* does not reasonably provide enablement for all the compounds or mixtures of compounds with respect to all arthropods, or even all mosquitos is respectfully traversed.

The Office states that the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. The Office then states that, for instance, lactic acid is known to be a repellent to tsetse flies citing Voskamp et al., Abstrat; Mihok et al., Abstract; and Saini et al., Abstract. The Office further states that different species of mosquitos are effected differently, i.e., attracted, repelled, or non-responsive, by various compounds, including compounds falling within the scope of

Applicants' invention citing Takken et al., pgs 140-145, 1999; Schreck et al, page 409, Table 2, 1990; and Kline et al., pages 386-390, 1990. The Office then states that even with respect to *Aedes aegypti*, altering the base structure of lactic acid has varying effects of the attractancy and/or repellency of the lactic acid derivative to *Aedes aegypti* citing Carlson et al., pages 329-331, 1973 and Davis et al., pages 445, Table 1, 1988. The Office then concludes that in light of the above, it appears that a skilled artisan would be required to do undue experimentation in order to make and/or use the invention commensurate in scope with the claims.

Claim 1 has been canceled and claims 43 and 44 have been amended to recite ..."Aedes aegypti, Aedes albopictus, and *Anopheles albimanus*.". Withdrawal of the instant rejection is respectfully requested.

The rejection of claim 1 under 35 USC 102(b) as anticipated by Granata et al or Laye et al is respectfully traversed.

The Office states that Granata et al. expressly discloses a product comprising lactic acid, acetone, 2-butanone, 2,3-pentanedione, 2-heptanone, 3-hydroxy-2-butanone, diacetyl, acetaldehyde, ethanol, hexanol, trichloromethane, 2-ethyl fura, benzene, and dimethyl disulfide falling within the scope of applicant's claims citing page 333-334, Lactic acid production,

and page 335, Table 8, Volatile compound composition. The Office then states that Laye et al. expressly disclose a product comprising lactic acid, pyruvic acid, acetone, 2-butanone, diacetyl, 2,3-pentanedione, 2-heptanone, 2-hydroxy-2-butanone, 2-nonanone, acetaldehyde, 2-propanol, ethanol, methyl benzene, dimethyl sulfide, and benzothiazole falling within the scope of applicants claims citing page 992-994, Lactose and organic acids, Volatile compounds, Tables 5-8.

Claim 1 has been canceled. Withdrawal of the instant invention is respectfully requested.

The rejection of claims 1 and 48 under 35 USC 102(b) as being anticipated by Carlson et al (Yellowfever Mosquitoes: Compounds Related to Lactic Acid that Attract Females) is respectfully traversed.

The Office states that Carlson et al expressly discloses a method and composition for attracting mosquitoes containing glycolic acid and acetone citing page 330, Table 1.

Applicants respectfully submit that Carlson et al fails to render the instantly claimed invention anticipated. Claim 1 has been canceled and no other pending claim is of the same scope. With respect to claim 48, Carlson teaches in the "Materials and Methods" section that the acetone, used as a solvent, is allowed to evaporate in the sample tube prior to passing dry nitrogen

through the tube combined with CO₂ and then CO₂ and nitrogen are passed through other port as a check. Therefore, the reference fails to anticipate claim 48 which is drawn to a composition consisting of glycolic acid and acetone. No where does the claim encompass CO₂, which is taught by Carlson as a requirement for an artificial trap (Page 320, right column) nor does Carlson teach a composition that includes acetone as a part of the attractant composition as required by the instantly claimed invention as stated above.

The Federal Circuit states that the anticipation determination is viewed from one of ordinary skill in the art and that there must be no difference between the claimed invention and the reference disclosure as viewed by a person of ordinary skill in the field of the invention, Scripps Clinic & Research Foundation v. Genentech Inc., 927 F. 2d 1565, 18 USPQ2d 1001, 1010, (Fed. Cir. 1991). Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. It is not enough, however, that the reference disclose all the claimed elements in isolation.
The rejection is improper.

The rejection of claims 1, 43, 44, and 50 under 35 USC 103(a) as being unpatentable over Smith et al. (*Annals of the Entomological Society of America*, 1970) in view of Kline et al. (*J. Am. Mosq. Control Assoc.*, 1998) and Wilson et al. (U.S. Patent No. 4,818,526) is respectfully traversed.

The Office states that Smith et al. teaches that the combination of lactic acid and carbon dioxide is an effective mosquito control citing page 766 of the reference. The Office then states that Kline et al. teaches that dimethyl disulfide is effective in attracting mosquitoes (Abstract). The Office also states that Wilson et al. teaches that dimethyl disulfide is effective in attracting mosquitoes citing column 8, lines 44-60.

The Office then states that the difference between the prior art and the claimed invention is that the prior art does not expressly disclose compositions or methods comprising or comprising essentially of lactic acid and butanone or lactic acid, butanone and dimethyl disulfide. The Office then states that the prior art amply suggest the same as lactic acid, butanone and carbon dioxide and dimethyl disulfide are known to attract mosquitoes. It then states that as such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to modify the prior art as above with the expectation that the combination would be effective in

attracting mosquitoes citing *In re Kerkhoven*, 205 USPQ 1069, 1072 (CCPA 1980); and *Ex parte Quandriani*, 25 USPQ2d 1071 (Bd. Pat. App. & Inter., 1992). The office concludes that the claimed invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the claimed invention was made, because every element of the claimed invention has been collectively taught by the combined teachings of the references.

Applicants respectfully submit that the combination of Smith et al. in view of Kline et al. and Wilson et al. fails to render the instantly claimed invention of claims 43 and 44 *prima facie* obvious because the combination of references fails to teach one of ordinary skill in the art how to make and use the instantly claimed invention. Claims 1 and 50 have been canceled. There is nothing in the combination which teaches that the method of the instantly claimed invention of attracting *Aedes aegypti*, *Aedes albopictus* and *Anopheles albinmanus* by exposing an environment with mosquito attracting amounts of lactic acid and butanone or lactic acid, butanone and dimethyl disulfide. Smith teaches CO₂ and lactic acid for *Aedes aegypti*. Kline teaches Butanone and CO₂ that is attractive to four different mosquitoes which were different from the ones of the instantly claimed invention. Kline also teaches that the combination decreased responses of other species of mosquitoes when butanone was added to CO₂.

therefore establishing the unpredictable nature of the art. Wilson et al teaches the use of dimethyl disulfide alone as an attractant for mosquitoes. The combination of references teaches that CO₂ and lactic acid are synergistic together in attracting mosquitoes. Kline et al. teach that a combination of CO₂ and one other compound such as butanone increased attraction for some mosquitoes but not for all. So the combination of Smith in view of Kline would teach one of ordinary skill in the art at the time the claimed invention was made to use CO₂ and another compound such as butanone but fails to teach substituting the CO₂ with lactic acid or butanone. Furthermore, the combination teaches one of ordinary skill in the art that it is unpredictable if the compositions will work on different mosquitoes. Wilson et al. fails to cure the deficiencies of Smith in view of Kline especially since Wilson teaches the use of dimethyl disulfide alone and not in combination with anything else. Would it be a substitute for CO₂ or for lactic acid or butanone. There is absolutely no guidance to one of ordinary skill in the art.

The Office is also using the improper standard of obvious to try. It is respectfully submitted that the essence of obviousness does not arise by merely picking and choosing from the prior art to produce the claimed invention. "In order to establish *prima facie* obviousness, it is necessary for the Examiner to present evidence preferably in the form of some

teaching, suggestion, incentive, or general available knowledge, that one of ordinary skill in the art would have been led to combine the relevant teachings of the applied references in the proposed manner to arrive at the claimed invention. Ex parte Levengood, 28 USPQ2d, 1300 (Bd. Pat. & Int'l, 1993). Starting from this correct standard of obviousness, the error of the Office is clear—it is improper because the Office has failed to identify teachings in the prior art motivating the skilled artisan to produce the method of the presently claimed invention. No references or combination of references have been provided which would teach, suggest, or motivate one of ordinary skill in the art to modify Smith et al. to provide method of attracting the mosquitoes of the claimed invention using a composition comprising mosquito attracting amounts of lactic acid and butanone or lactic acid, butanone, and dimethyl disulfide. The Kline and Wilson references fail to cure the deficiencies of Smith et al. There is simply no motivation save for the teachings of applicant's application to produce the claimed invention.

The rejection is improper. Applicants respectfully request withdrawal of the instant rejection.

The rejection of claims 1,45, and 52 under 35 USC 103(a) as being unpatentable over Smith et al (supra) in view of Paganessi et al. (U.S. Patent No. 5,943,815) is respectfully traversed.

The Office states that Smith et al teaches that the combination of lactic acid and carbon dioxide is an effective mosquito attractant citing page 766 of the reference. The Office then states that Paganessi et al teach that the combinations of acetone with carbon dioxide is an effective attractant for mosquitoes citing column 2, lines 53-68, and column 3, lines 1-25. The Office then states that the difference between the prior art and the claimed invention is that the prior art does not expressly disclose compositions and methods of attracting mosquitoes consisting of lactic acid, acetone and carbon dioxide. The Office then states that the prior art amply suggests the same as it is known in the art that the combination of lactic acid or acetone, each with carbon dioxide is effective in attracting mosquitoes. The office then states that as such, it would have been well within the skill of and one of ordinary skill in the art would have been motivated to combine lactic acid, acetone and carbon dioxide with the expectation that the same would be effective in treating mosquitoes.

Applicants respectfully submit that the combination of Smith in view of Paganessi fails to render the instantly claimed